
SENATE CONCURRENT RESOLUTION

REQUESTING THE DEPARTMENT OF EDUCATION TO CONVENE A WORKING
GROUP TO IDENTIFY FACTORS AND RESOURCES NEEDED TO SUSTAIN
CURRENT AND FUTURE ROBOTICS PROGRAMS WITHIN THE DEPARTMENT
OF EDUCATION.

1 WHEREAS, robots and robotic technologies represent a
2 practical application of physics, computer science, engineering,
3 and mathematics and provide a very powerful and flexible
4 approach to demonstrate a variety of engineering concepts; and
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6 WHEREAS, robotics appeals to a broad range of interests and
7 allows multiple points of access to science, technology,
8 engineering, and mathematics for many types of learners; and
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10 WHEREAS, robotics technology and robots are being used by
11 an increasing number of educators at the college level to
12 reinforce computer science and engineering theory and to teach
13 basic software and mechanical engineering at the elementary,
14 middle and intermediate, and high school levels; and
15

16 WHEREAS, robots and robotic technology catalyze an interest
17 in science and increase self-esteem, as well as teach basic life
18 skills such as problem solving, decision making, goal setting,
19 and logical thinking; and
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21 WHEREAS, Hawaii can serve as a model of coordination of a
22 full range of robotics education opportunities from elementary
23 through college and provide templates for initiating such
24 efforts elsewhere; and
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26 WHEREAS, many Hawaii schools have robotics teams, but there
27 are still many constraints on funding, resources, and
28 instructors that prevent some schools from building robotics
29 programs and recruiting students; and
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1 WHEREAS, in order to improve science education in the State
2 and increase opportunities for students to participate in
3 robotics, it is necessary to identify the most relevant factors
4 and resources needed to sustain current and future robotics
5 programs in public schools; now, therefore,
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7 BE IT RESOLVED by the Senate of the Thirtieth Legislature
8 of the State of Hawaii, Regular Session of 2019, the House of
9 Representatives concurring, that the Department of Education is
10 requested to convene a working group to identify factors and
11 resources needed to sustain current and future robotics programs
12 within the Department; and
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14 BE IT FURTHER RESOLVED that the working group is requested
15 to evaluate the following:
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- 17 (1) The current state of robotics in Hawaii from
18 kindergarten to post-secondary education;
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- 20 (2) Identifying and describing factors that have
21 initiated, sustained, and created increasing access
22 for student participation in scholastic robotics and
23 factors that have been barriers to initiating and
24 sustaining programs and expanding access for student
25 participation;
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- 27 (3) Identifying and describing the resources needed to
28 sustain the current and future robotics programs;
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- 30 (4) Identifying the means to track student participation
31 to document the role scholastic robotics has on
32 college and career readiness and career choices;
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- 34 (5) Identifying the opportunities for leveraging Hawaii
35 scholastic robotics for hosting annual national and
36 international scholastic robotics competitions,
37 exhibitions, and exchange programs with Pacific Rim
38 partners to foster technology-based tourism and
39 collaboration among countries; and
40
- 41 (6) Other relevant issues as determined by the working
42 group; and



1
2 BE IT FURTHER RESOLVED that the working group is requested
3 to include the following members:

- 4
5 (1) The state STEM and career technical education
6 specialists and representative complex resource STEM
7 and career technical education teachers from the
8 Department of Education;
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10 (2) Assistant Dean of the College of Engineering at the
11 University of Hawaii at Manoa, or the Dean's designee;
12
13 (3) The statewide coordinators, or designated
14 representatives, for the Hawaii scholastic robotics
15 programs that have national and international
16 affiliations, such as FIRST Robotics, VEX Robotics,
17 underwater ROV, drone, and other identified programs;
18
19 (4) Representatives from the Hawaii Tourism Authority and
20 Hawaii Convention Center;
21
22 (5) Representatives from identified work force development
23 and new business development groups, including the
24 Department of Labor and Industrial Relations and
25 Hawaii Technology Development Corporation;
26
27 (6) Representatives of private industry that have provided
28 grant funds to support robotics through their
29 foundations;
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31 (7) A representative from the Office of Aerospace
32 Development; and
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34 (8) Classroom teacher representatives who foster STEM
35 using robotics as tools for after-school or in-class
36 programs from the islands of Kauai, Lanai, Maui,
37 Molokai, Oahu, and Hawaii island; and
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39 BE IT FURTHER RESOLVED that the working group is requested
40 to submit a report of its findings and recommendations,
41 including any proposed legislation, to the Legislature no later



1 than twenty days prior to the convening of the Regular Session
2 of 2020; and
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4 BE IT FURTHER RESOLVED that certified copies of this
5 Concurrent Resolution be transmitted to the Chairperson of the
6 Board of Education, Superintendent of Education, Director of
7 Labor and Industrial Relations, President and Chief Executive
8 Officer of the Hawaii Tourism Authority, Executive Director of
9 the Hawaii Technology Development Corporation, Director of the
10 Office of Aerospace Development, Assistant Dean of the College
11 of Engineering at the University of Hawaii at Manoa, Statewide
12 Coordinator for VEX Robotics, and Statewide Coordinator for
13 First Robotics.

